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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,380	06/24/2003	Thomas A. Maufer	NVDA P000605	4738

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EXAMINER	
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ART UNIT	PAPER NUMBER
2155	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/606,380	MAUFER ET AL.	
	Examiner	Art Unit	
	Benjamin R. Bruckart	2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 June 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *34-65* is/are pending in the application.

4a) Of the above claim(s) *1-33, 66-76* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *34-65* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 June 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

Claims 34-65 are pending in this Office Action.

Claims 1-33 and 66-76 are withdrawn as directed to non-elected invention.

Election/Restrictions

Applicant has selected group VI: claims 34-65 without traverse.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Specification

The changes to the specification are accepted.

Drawings

The drawings are objected to. New clean copies of the drawings are requested. The pages entered contain grainy images and are difficult to read.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 34-65 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,178,450 by Ogishi et al.

Regarding claim 34, a method for tracking packet states (Ogishi: col. 1, line 57- col. 2, line 17), comprising:

initiating tracking of state from a CLOSED state (Ogishi: Fig. 14);

from the CLOSED state, tracking transition to a LISTEN state or a SYN-SENT state (Ogishi: Fig. 14; system A to system B);

from the LISTEN state, tracking transition to one of the CLOSED state, a SYN-RCVD state or the SYN-SENT state (Ogishi: LISTEN=SYN_SENT; Fig. 14);

from the SYN-RCVD state, tracking transition to either a first hardware state or a SYN-RCVD-SYN-SENT state (Ogishi: Fig. 14; SYN_RCVD followed by SYN+ACK);

from the SYN-SENT state, tracking transition to either a second hardware state or the SYN-RCVD-SYN-SENT state (Ogishi: Fig. 14; Fig. 5; col. 19, lines 38-42);

from the SYN-RCVD-SYN-SENT state, tracking transition to either a first SYN-RCVD-SYN-SENT-ACK state or a second SYN-RCVD-SYN-SENT-ACK state (Ogishi: Fig. 5, tag 12-13); and

from either the first SYN-RCVD-SYN-SENT-ACK state or the second SYN-RCVD-SYN-SENT-ACK state, tracking transition to a third hardware state (Ogishi: Fig. 5 and 14).

Regarding claim 35, the method, according to claim 34, wherein the transition from the LISTEN state to either the SYN-RCVD state or the SYN-SENT state is respectively responsive to detecting either a received SYN or a sent SYN for a packet (Ogishi: Fig. 14).

Regarding claim 36, the method, according to claim 34, wherein the transition from the SYN-RCVD state to either the first hardware state or the SYN-RCVD-SYN-SENT state is respectively responsive to detecting either a sent SYN-ACK or a sent SYN for a packet (Ogishi: Fig. 14).

Regarding claim 37, the method, according to claim 34, wherein the transition from the SYN-SENT state to either the second hardware state or the SYN-RCVD-SYN-SENT state is respectively responsive to detecting either a received SYN-ACK or a received SYN for a packet (Ogishi: Fig. 12).

Regarding claim 38, the method, according to claim 34, wherein the transition from the SYN-RCVD-SYN-SENT state to either the first SYN-RCVD-SYN-SENT-ACK state or the second SYN-RCVD-SYN-SENT-ACK state is respectively responsive to detecting either a sent SYN-ACK or a received SYN-ACK for a packet (Ogishi: Fig. 5, tag 12 and 13).

Regarding claim 39, the method, according to claim 34, wherein the transition from either the first SYN-RCVD-SYN-SENT-ACK state or the second SYN-RCVD-SYN-SENT-ACK state to the third hardware state is respectively responsive to detecting either a received SYN-ACK or a sent SYN-ACK for a packet (Ogishi: Fig. 5).

Regarding claim 40, the method, according to claim 34, wherein the first hardware state is a SYN-RCVD-SYN-ACK-SENT state, the second hardware state is SYN-SENT-SYN-ACK-RCVD state, and the third hardware state is a connection-established state (Ogishi: Fig. 5).

Regarding claim 41, the method, according to claim 34, wherein the transition from the LISTEN state to the CLOSED state is responsive to an age out condition for a packet (Ogishi: Fig. 5, tag TIME_WAIT to Closed).

Regarding claim 42, the method, according to claim 34, wherein the transition from the LISTEN state to the CLOSED state is responsive to a close condition for a packet (Ogishi: Fig. 5).

Regarding claim 43, the method, according to claim 34, wherein the transition from the CLOSED state to the SYN-SENT state is responsive to a sent SYN for a packet (Ogishi: Fig. 5, tag #1).

Regarding claim 44, the method, according to claim 34, wherein the LISTEN state, the SYN-RCVD state, the SYN-SENT state, the SYN-RCVD-SYN-SENT state, the first SYN-RCVD-SYN-SENT-ACK state and the second SYN-RCVD-SYN-SENT-ACK state are software states (Ogishi: col. 1, lines 57- col. 2, line 17; col. 4, lines 3-34).

Regarding claim 45, an apparatus for tracking packet states (Ogishi: col. 1, line 57- col. 2, line 17), comprising:

means for initiating tracking of state from a first CLOSED state (Ogishi: Fig. 14);

means for tracking software states for packets to one of a first, a second and a third hardware state, the first hardware state being a SYN-RCVD-SYN-ACK-SENT state (Ogishi: Fig. 14; SYN_RCVD followed by SYN+ACK), the second hardware state being SYN-SENT-SYN-ACK-RCVD state (Ogishi: Fig. 14; Fig. 5; col. 19, lines 38-42), and the third hardware state being a connection-established state (Ogishi: Fig. 5 and 14); and

means for tracking hardware states for the packets including:

means for tracking transition to the connection-established state from the SYN-RCVD-SYN-ACK-SENT state (Ogishi: Fig. 5 and 14);

means for tracking transition to the connection-established state from the SYN-SENT-SYN-ACK-RCVD state (Ogishi: Fig. 5 and 14);

means for tracking transition to a first FIN-WAIT state from the SYN-RCVD-SYN-ACK-SENT state, the SYN-SENT-SYN-ACK-RCVD state or the connection-established state (Ogishi: Fig. 5); and

means for tracking transition to a CLOSE-WAIT-FIN state from the SYN-RCVD-SYN-

ACK-SENT state, the SYN-SENT-SYN-ACK-RCVD state or the connection-established state (Ogishi: Fig. 5).

Regarding claim 46, the apparatus, according to claim 45, further comprising:

means for tracking transition to a second FIN-WAIT state, a FIN-WAIT-FIN state or a CLOSING-FIN state from the first FIN-WAIT state (Ogishi: Fig. 5 tag #5-2); and

means for tracking transition to the CLOSING-FIN state, a LAST-ACK state or a CLOSE-WAIT state from the CLOSE-WAIT-FIN state (Ogishi: Fig. 5; tag #20-2).

Regarding claim 47, the apparatus, according to claim 46, further comprising:

means for tracking transition to the FIN-WAIT-FIN state from the second FIN-WAIT state (Ogishi: Fig. 5);

means for tracking transition to the FIN-WAIT-FIN state or a CLOSING state from the CLOSING-FIN state (Ogishi: Fig. 5); and

means for tracking transition to the LAST-ACK state from the CLOSE-WAIT state (Ogishi: Fig. 5 tag #20-2).

Regarding claim 48, the apparatus, according to claim 47, further comprising:

means for tracking transition to a TIME-WAIT state from the FIN-WAIT-FIN state; means for tracking transition to the TIME-WAIT state from the CLOSING state (Ogishi: Fig. 5 ; tag #5-1);
and

means for tracking transition to a second CLOSED state from the LAST-ACK state or the TIME-WAIT state (Ogishi: Fig. 5 tag #20-1).

Regarding claim 49, the apparatus, according to claim 45, wherein the transition to the first FIN-WAIT state from the SYN-RCVD-SYN-ACK-SENT state, the SYN-SENT-SYN-ACK-RCVD state or the connection-established state is responsive to a sent FIN (Ogishi: Fig. 5 , FINsent #3).

Regarding claim 50, the apparatus, according to claim 45, wherein the transition to the connection-established state from the SYN-RCVD-SYN-ACK-SENT state is responsive to a received ACK of a SYN (Ogishi: Fig. 5).

Regarding claim 51, the apparatus, according to claim 45, wherein the transition to the connection-established state from the SYN-SENT-SYN-ACK-RCVD state is responsive to a sent ACK of a SYN (Ogishi: Fig. 5).

Regarding claim 52, the apparatus, according to claim 46, wherein the transition to the second FIN-WAIT state from the first FIN-WAIT state is responsive to a received ACK of a FIN (Ogishi: Fig. 5, tag #15-1).

Regarding claim 53, the apparatus, according to claim 46, wherein the transition to the FIN-WAIT-FIN state from the first FIN-WAIT state is responsive to a received FIN and a received ACK of the received FIN in a packet (Ogishi: Fig. 5).

Regarding claim 54, the apparatus, according to claim 46, wherein the transition to the CLOSING-FIN state from the first FIN-WAIT state is responsive to a received FIN (Ogishi: Fig. 5 tag #4-1).

Regarding claim 55, the apparatus, according to claim 46, wherein the transition to the CLOSING-FIN state from the CLOSE-WAIT-FIN state is responsive to a sent FIN (Ogishi: Fig. 5; tag #19-1).

Regarding claim 56, the apparatus, according to claim 46, wherein the transition to the LAST-ACK state from the CLOSING-WAIT-FIN state is responsive to a sent FIN and a sent ACK of the sent FIN in a packet (Ogishi: Fig. 5 tag #7).

Regarding claim 57, the apparatus, according to claim 46, wherein the transition to the CLOSE-WAIT state from the CLOSE-WAIT-FIN state is responsive to a sent ACK of a FIN

(Ogishi: Fig. 5).

Regarding claim 58, the apparatus, according to claim 47, wherein the transition to the FIN-WAIT-FIN state from the second FIN-WAIT state is responsive to a received FIN (Ogishi: Fig. 5).

Regarding claim 59, the apparatus, according to claim 47, wherein the transition to the FIN-WAIT-FIN state from the CLOSING-FIN state is responsive to a received ACK of a FIN (Ogishi: Fig. 5).

Regarding claim 60, the apparatus, according to claim 47, wherein the transition to the CLOSING state from the CLOSING-FIN state is responsive to a sent ACK of a FIN (Ogishi: Fig. 5).

Regarding claim 61, the apparatus, according to claim 47, wherein the transition to the LAST-ACK state from the CLOSE-WAIT state is responsive to a sent FIN (Ogishi: Fig. 5).

Regarding claim 62, the apparatus, according to claim 48, wherein the transition to a TIME-WAIT state from the FIN-WAIT-FIN state is responsive to a sent ACK of a FIN (Ogishi: Fig. 5).

Regarding claim 63, the apparatus, according to claim 48, wherein the transition to the TIME-WAIT state from the CLOSING state is responsive to a received ACK of a FIN (Ogishi: Fig. 5).

Regarding claim 64, the apparatus, according to claim 48, wherein the transition to a second CLOSED state from the LAST-ACK state is responsive to a received ACK of a FIN (Ogishi: Fig. 5).

Regarding claim 65, the apparatus, according to claim 48, wherein the transition to a second CLOSED state from the TIME-WAIT state is responsive to a timed out condition (Ogishi: Fig. 5; TIME_WAIT).

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

U. S. Patent No. 20040199808 by Freimuth teaches tracking states of packets and connections in order to recover from a failure and resume communications (para 54-66).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin R Bruckart whose telephone number 571-272-3982.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular communications and after final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the examiner whose telephone number is 571-272-3982.

Benjamin R Bruckart
Examiner
Art Unit 2155

BRB

SALEH NAJJAR
SUPERVISORY PATENT EXAMINER